

REMARKS

Claims 1 – 28 and 32 – 46 are in the instant application. Claims 1, 2, 16, 18, 32, 33 and 42 are amended to more positively recite applicants' patentably novel solar control article and method of making a solar control article; claim 19 is cancelled to eliminate issues, and claim 47 is added to set forth applicants' patentably novel solar control article in varying scope. No claims are allowed.

Claims 1 – 28, 32 – 39 and 43 – 46 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,821,001 to Arbab et al. (hereinafter also referred to as "Arbab"). Applicants respectfully traverse the rejection of claims 1 – 28, 32 – 39 and 43 – 46 under 35 U.S.C. 103(a) as being unpatentable over Arbab; however, to reduce the issues, claim 19 is cancelled without prejudice, and claims 1, 2, 16, 18, 32 and 33 are amended to more positively reciting applicants' patentably novel solar control article and method of making a solar control article. Support for the amendments to claims 1, 2, 16, 18, 32 and 33 is found, among other places, in the claims in the application. Based on the foregoing, applicants respectfully request admittance of the amendments to claims 1, 2, 16, 18, 32 and 33, and consideration of claims 1 – 18, 20 – 28, 32 – 39 and 43 – 46.

Claims 2 – 15 and 43 – 46 are dependent on claim 1; claims 17, 18 and 20 – 28 are dependent on claim 16; claims 33 – 39 are dependent on claim 32.

Article claims 1 and 16 recite, among other things, in one form or another a solar control article having, among other things, a substrate having a surface, a coating over the surface provides a coated article having a visible light transmittance in the range of about 50 to about 70%, a shading coefficient less than about 0.33 and a reflectance less than about 30%. The coating includes at least one antireflective layer deposited over the substrate surface, and at least one infrared reflective film deposited over the at least one antireflective layer.

Article claim 16 further recites, among other things, that the coating includes a first antireflective layer having a thickness of about 272 to

about 332 angstroms; a first infrared reflective layer having a thickness of about 86 to about 269 angstroms over the first antireflective layer a first primer layer having a thickness of about 15 to about 30 angstroms over the first infrared reflective layer; a second antireflective layer having a thickness of about 198 to about 836 angstroms deposited over the first primer layer; a second infrared reflective layer having a thickness of about 159 to about 257 angstroms over the second antireflective layer; a second primer film having a thickness of about 15 to about 30 angstroms over the second infrared reflective layer, and a third antireflective layer having a thickness of about 60 to about 273 angstroms over the second primer layer.

Method claim 32 recites, among other things, the steps of providing a substrate having a surface and depositing a coating over the surface of the substrate to provide a coated article having a visible light transmittance in the range of about 50 to about 70%, a shading coefficient less than about 0.33 and a reflectance less than about 30%, the depositing step includes, among other things, the steps of depositing at least one antireflective layer over the substrate surface; and depositing at least one infrared reflective layer over the at least one antireflective layer.

The Office Action alleges, among other things, that Arbab discloses, in an example that the solar control article may possess a visible light transmittance of 81.6% (column 19, line 29, through column 20, line 24). The Office Action states that Arbab fails to mention the specific shading coefficient or reflectance of the example. The Office Action further alleges that Arbab discloses that the choice of the layer thickness is based on the desired color and emissivity of the product, as well as manufacturing related issues (column 20, lines 24 – 31).

Applicants respectfully submit that even if the allegations of the Office Action are correct, one skilled in the art would not be taught applicants' patentably novel solar control article. More particularly, independent claims 1, 16 and 32 recite in one form or another, among other things, that the coated article has a visible light transmittance in the range of about 50 to about 70%.

a shading coefficient less than about 0.33 and a reflectance less than about 30%.

Applicants' coated article has medium visible light transmission (page 22, lines 3 – 9, of the specification) whereas Arbab discloses a high transmission coated article (see Abstract of Arbab), e.g. greater than 76% (column 12, line 46, of Arbab) and up to at least 88% (column 13, line 12, of Arbab). Further, applicants' claimed solar control article has a low shading coefficient. Arbab does not disclose a shading coefficient for his coated article, nor does the Arbab disclose that a solar control article having a low shading coefficient can be made by altering the thicknesses of the films. The Arbab disclosure is directed to making a coated article having high visible light transmission and low emissivity whereas applicants' claims are directed to making an article having a med visible light transmission and a low shading coefficient. There is no disclosure that would teach one skilled in the art that the films of Arbab should be altered to make a coated article having a transmission other than a high visible light transmission.

The Office Action states that due to its inability to make articles, that the burden of proof is on applicants to show differences in the articles that are substantially identical. Applicants' respectfully submit that any article made using the teachings of Arbab would be the examples disclosed by Arbab and each of these examples has a visible light transmission above 70%. The Office Action has failed to show a specific example of Arbab that falls within one of applicants' claims. The fact that Arbab selects film thicknesses and arranges the films to provide a coated article having a high transmission, e.g. above 70% is a clear indication that there are no products of Arbab that are substantially identical to the applicants' claimed products.

Based on the foregoing, applicants respectfully request withdrawal of the rejection of claims 1 – 18, 20 – 28, 32 – 39 and 43 – 46 under 35 U.S.C. 103(a) as being unpatentable over Arbab.

Claims 40 and 41 are rejected under 35 U.S.C. 103(a) as being unpatentable over Arbab as applied above, and further in view of U.S. Patent No. 5,776,603 to Zagdoun et. al. (hereinafter also referred to as "Zagdoun").

Applicants respectfully traverse the rejection of claims 40 and 41 under 35 U.S.C. 103(a) as being unpatentable over Arbab as applied above, and further in view of Zagdoun and request reconsideration thereof. The Office Action in applying this rejection makes reference to "Finley". Although it is not clear why "Finley" is introduced, applicants will proceed by substituting "Zagdoun" for "Finley".

Claims 40 and 41 are dependent on claim 15 which is dependent on claim 1. Claim 1 and Arbab were discussed above.

Without making any admissions that an artisan would combine Arbab and Zagdoun as suggested by the Office Action, and only for the sake of discussion, applicants consider the combination to be made. Applicants respectfully submit that if an artisan combined Arbab and Zagdoun as suggested by the Office Action, the resultant solar control article would be an insulating unit of the type discussed in Zagdoun using the coated glass of Arbab. This would not render obvious the solar control article disclosed in claims 1, 15, 40 and 41. More particularly, applicants discussed above that Arbab does not disclose applicants' claimed solar control article of claim 1 because Arbab, among other things, does not disclose implicitly or explicitly a solar control article having a visible transmission in the range of about 50 to 70% and a shading coefficient less than about 0.33. Zagdoun does not cure the defects of Arbab, and therefore, the unit of Zagdoun would have the coated glass of Arbab and would not include applicants' claimed coated glass.

Based on the foregoing, applicants respectfully request withdrawal of the rejection of claims 40 and 41 under 35 U.S.C. 103(a) as being unpatentable over Arbab as applied above, and further in view of Zagdoun.

Claim 42 is rejected under 35 U.S.C. 103(a) as being unpatentable over Arbab as applied above, and further in view of Zagdoun and U.S. Patent No. 4,863,540 to Catalano et. al. (hereinafter also referred to as "Catalano"). Applicants respectfully traverse the rejection of claim 42 under 35 U.S.C. 103(a) as being unpatentable over Arbab as applied above, and further in view of Zagdoun and Catalano and requests reconsideration

thereof. The Office Action in applying this rejection makes reference to "Finley". Although it is not clear why "Finley" is introduced, applicants will proceed by substituting "Zagdoun" for "Finley".

Claim 42 is dependent on claim 15 which is dependent on claim 1. Claim 1, Arbab and Zagdoun were discussed above. Claim 42 has been amended to more positively recite applicants' solar control article. Support for the amendment to claim 42 is found, among other places, in the claims presently on file and on page 8, lines 20 – 26, of the specification. Based on the foregoing, applicants respectfully request admittance and consideration of amended claim 42.

Without making any admissions that an artisan would combine Arbab, and Zagdoun and Catalano as suggested by the Office Action, and only for the sake of discussion, applicants consider the combination to be made. Applicants respectfully submit that the resultant solar control article would be an insulating unit of the type discussed in Zagdoun having a polymeric sheet of the type disclosed by Catalano having the coating of Arbab on a glass sheet or a polymeric film. This combination unit would not render obvious the solar control article recited in applicants' claims 1, 15 and 42. More particularly, applicants discussed above that Arbab does not disclose applicants' claimed solar control article of claim 1 because Arbab, among the things, does not disclose implicitly or explicitly a solar control article having a visible transmission in the range of about 50 to 70% and a shading coefficient less than about 0.33. Neither Zagdoun nor Catalano cures the defects of Arbab, and therefore, the unit of Zagdoun and Catalano would have the coated glass of Arbab and would not include applicants' claimed coated article.

Applicants respectfully request withdrawal of the rejection of claim 42 under 35 U.S.C. 103(a) as being unpatentable over Arbab as applied above, and further in view of Zagdoun and Catalano.

Claim 44 is rejected under 35 U.S.C. 103(a) as being unpatentable over Arbab as applied above, and further in view of U.S. Patent No. 4,489,134 to Yudenfriend (hereinafter also referred to as "Yudenfriend").

Applicants respectfully traverse the rejection of claim 44 under 35 U.S.C. 103(a) as being unpatentable over Arbab as applied above, and further in view of Yudenfriend and request reconsideration thereof.

Claim 44 is dependent on claim 1. Claim 1 and Arbab were discussed above.

Without making any admissions that an artisan would combine Arbab and Yudenfriend as suggested by the Office Action, and only for the sake of discussion, applicants consider the combination to be made. Applicants respectfully submit that the resultant coated glass having the coating of Yudenfriend would be a glass having the coating of Arbab. More particularly, applicants discussed above that Arbab does not disclose applicants' claimed solar control article of claim 1 because Arbab, among the things, does not disclose implicitly or explicitly disclose a solar control article having a visible transmission in the range of about 50 to 70% and a shading coefficient less than about 0.33. Yudenfriend does not cure the defects of Arbab, and therefore, the coated glass of Arbab would have the coating of Yudenfriend and would not include applicants' claimed coated article.

Applicants respectfully request the withdrawal of the rejection of claim 44 under 35 U.S.C. 103(a) as being unpatentable over Arbab as applied above, and further in view of Yudenfriend.

Based on the above discussion and showing, applicants respectfully request allowance of claims 1 – 18, 20 – 28 and 32 – 46.

Applicants by this amendment have added new claim 47. Claim 47 is dependent on claim 15 which is dependent on claim 1; claim 1 was discussed above. Claim 47 recites, among other things, that (i) the solar control article is an insulated glass unit having a first pane and a second pane space from the first pane, (ii) the substrate of the coated article is a clear glass substrate, (iii) the coated article is the first pane, (iv) the second pane is a clear glass sheet and (v) the insulating unit has a blue or blue-gray color in transmission.

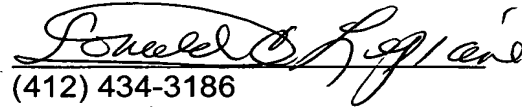
Support for claim 47 is found, among other places, on page 6, lines 13 – 18, of the specification. The arguments put forth to patentably

distinguish claim 1 over the applied art are applicable, among others, to patentably distinguish claim 47 over similar art. Based on the foregoing, applicants respectfully request admittance, consideration and allowance of claim 47.

This amendment represents a sincere effort to place the application in condition for allowance. In the event issues remain, the Examiner is invited to call the undersigned to discuss those issues before further action is taken on the case.

Respectfully submitted,

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Pittsburgh, Pennsylvania
May 13, 2003